CLAIMS

1. A coated media sheet, comprising:

a) a printing surface including an ink-receiving coating formulated to accept an ink-jet ink composition, and

b) an opposing back surface comprising a back coating, said back coating including an admixture of:

i) 0.5 wt% to 75 wt% of a polymeric binder;

ii) 5 wt% to 95 wt% filler particulates having an average particle size from about 0.01 μm to about 15 μm; and

iii) 3 wt% to 90 wt% of spacer particulates of a different material than the filler particulates, said spacer particulates having an average particle size from about 6 μm to about 500 μm, with the proviso that the spacer particulates are larger than the filler particulates.

2. A coated media sheet as in claim 1, wherein the ink-receiving coating comprises a hydrophilic swellable or polymeric coating.

3. A coated media sheet as in claim 1, wherein the polymeric binder is selected from the group consisting of polyvinyl alcohols, acrylics, polystyrenes, polyesters, polyvinyl pyrrolidones, polybutadienes, polystyrene/polybutadienes, polyamides, polyurethanes, and combinations thereof.

4. A coated media sheet as in claim 3, wherein the polymeric binder is polyvinyl alcohol.

5. A coated media sheet as in claim 1, wherein the polymeric binder is present at from 5 wt% to 35 wt%.

6. A coated media sheet as in claim 1, wherein the filler particulates are selected from the group consisting of clays, ground calcium carbonate, precipitated calcium carbonate, barium sulfate, titanium dioxide, silica,

aluminum trihydrate, aluminum oxide, boehmite, and combinations thereof.

7. A coated media sheet as in claim 6, wherein the filler particulates are ground or precipitated calcium carbonate.

8. A coated media sheet as in claim 1, wherein the filler particulates are present at from 50 wt% to 80 wt%.

9. A coated media sheet as in claim 1, wherein the spacer particulates are selected from the group consisting of crystalline silica, amorphous silica, polyethylenes, polypropylenes, glass beads, crushed glass, ground calcium carbonate, barium sulfate, titanium dioxide, alumina, polystyrene, and combinations thereof.

10. A coated media sheet as in claim 9, wherein the spacer particulates are polyethylene beads.

11. A coated media sheet as in claim 9, wherein the spacer particulates are silica beads.

12. A coated media sheet as in claim 1, wherein the spacer particulates are present at from 3 wt% to 15 wt%.

13. A coated media sheet as in claim 1, wherein the back coating provides an average surface roughness from about 280 to 430 Sheffield units.

14. A coated media sheet as in claim 1, wherein the back coating thickness to average size of the spacer particulates is from about 1:1 to 1:3.

15. A coated media sheet as in claim 14, wherein the back coating thickness to average size of the spacer particulates is about 1:2.

16. A coated media sheet as in claim 1, wherein the ink-receiving coating thickness to back coating thickness ratio is fro m about 1:1 to 1:3.

17. A coated media sheet as in claim 1, wherein the back coating thickness is from about 3 µm to 40 µm.

18. A coated media sheet as in claim 1, wherein the media sheet is configured to have a static coefficient of friction from 0.15 to 0.55 and a dynamic coefficient of friction of 0.05 to 0.45 with respect to a substantially identical media sheet stacked thereon such that each ink-receiving layer of each media sheet faces a common direction.

19. A composite coating material for overcoating at least one side of a media substrate, comprising an admixture of:

i) 0.5 wt% to 75 wt% of a polymeric binder;

ii) 5 wt% to 95 wt% filler particulates having an average particle size from about 0.01 µm to about 15 µm; and

iii) 3 wt% to 90 wt% of spacer particulates of a different material than the filler particulates, said spacer particulates having an average particle size from about 6 µm to about 500 µm, with the proviso that the spacer particulates are larger than the filler particulates.

20. A composite coating material as in claim 19, wherein the polymeric binder is selected from the group consisting of polyvinyl alcohols, acrylics, polystyrenes, polyesters, polyvinyl pyrrolidones, polybutadienes, polystyrene/polybutadienes, polyamides, polyurethanes, and combinations thereof.

21. A composite coating material as in claim 19, wherein the polymeric binder is hydrophilic.

22. A composite coating material as in claim 19, wherein the filler

particulates are selected from the group consisting of clays, ground calcium carbonate, precipitated calcium carbonate, barium sulfate, titanium dioxide, silica, aluminum trihydrate, aluminum oxide, boehmite, and combinations thereof.

23. A composite coating material as in claim 19, wherein the spacer particulates are selected from the group consisting of crystalline silica, amorphous silica, polyethylenes, polypropylenes, glass beads, crushed glass, ground calcium carbonate, barium sulfate, titanium dioxide, alumina, polystyrene, and combinations thereof.

24. A composition coating material as in claim 19, wherein the polymeric binder is present at from 5 wt% to 35 wt%, the filler particulates are present at from 50 wt% to 80 wt%, and the spacer particulates are present at from 3 wt% to 15 wt%.

25. A method for preparing a coated media sheet, comprising:

a) coating a back side of a media substrate with a back coating, said back coating including an admixture of:

i) 0.5 wt% to 75 wt% of a polymeric binder,

ii) 5 wt% to 95 wt% filler particulates having an average particle size from about 0.01 μm to about 15 μm, and

iii) 3 wt% to 90 wt% of spacer particulates of a different material than the filler particulates, said spacer particulates having an average particle size from about 6 μm to about 500 μm, with the proviso that the spacer particulates are larger than the filler particulates; and

b) coating a front side of the media sheet with an ink-jet ink receiving coating.

26. A method as in claim 25, wherein the polymeric binder is selected from the group consisting of polyvinyl alcohols, acrylics, polystyrenes, polyesters, polyvinyl pyrrolidones, polybutadienes, polystyrene/polybutadienes,

polyamides, polyurethanes, and combinations thereof.

27. A method as in claim 25, wherein the filler particulates are selected from the group consisting of clays, ground calcium carbonate, precipitated calcium carbonate, barium sulfate, titanium dioxide, silica, aluminum trihydrate, aluminum oxide, boehmite, and combinations thereof.

28. A method as in claim 25, wherein the spacer particulates are selected from the group consisting of crystalline silica, amorphous silica, polyethylenes, polypropylenes, glass beads, crushed glass, ground calcium carbonate, barium sulfate, titanium dioxide, alumina, polystyrene, and combinations thereof.

29. A method as in claim 25, wherein the polymeric binder of the back coating is a hydrophilic polymer, and the ink-jet ink receiving coating includes a hydrophilic polymer, thereby reducing curl of the media sheet.

30. A method as in claim 25, wherein the polymeric binder is present at from 5 wt% to 35 wt%, the filler particulates are present at from 50 wt% to 80 wt%, and the spacer particulates are present at from 3 wt% to 15 wt%.